

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 02284126  
PUBLICATION DATE : 21-11-90

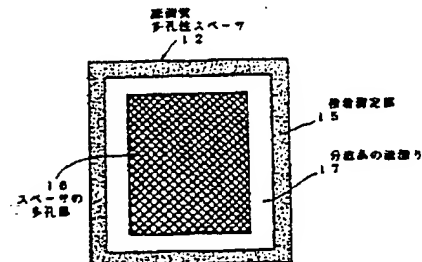
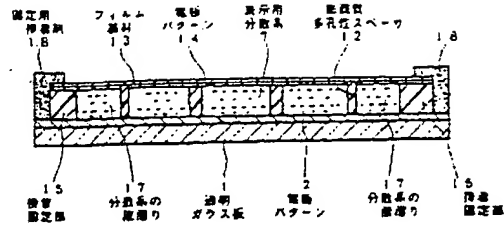
APPLICATION DATE : 26-04-89  
APPLICATION NUMBER : 01106807

APPLICANT : NIPPON MEKTRON LTD;

INVENTOR : OSHIRO TATSUHIKO;

INT.CL. : G02F 1/167 G09F 9/37

TITLE : ELECTROPHORESIS DISPLAY DEVICE  
AND PRODUCTION THEREOF



ABSTRACT : PURPOSE: To easily and surely inject a dispersion system into the respective pores of porous spacers by constituting the spacers of a swellable member and providing the liquid pools for the dispersion system around the porous parts thereof.

CONSTITUTION: The excess dispersion system is extruded while the flexible electrode plate 14 is brought into tight contact successively with the swellable porous spacers 12 by successively imparting a pressing force to the flexible electrode plate 14 side in the state of excessively supplying the dispersion system 7 for displaying to the swellable porous spacers 12 having the porous parts 16 and the dispersion system liquid pools 17. The generation of the residual holes which are display defects in the porous parts is, therefore, prevented. The evaporation of the dispersion system 7 occurring in the excessive negative pressure state generated in the respective pores by the excessive swelling of the swellable porous spacers 12 is prevented and the generation of the holes is obviated as the dispersion system 7 is supplied from the liquid pools 17 of the dispersion system. The dispersion system is surely sealed into the respective pores of the swellable porous spacers 12 in this way and the generation of the display defects is prevented.

COPYRIGHT: (C)1990,JPO&Japio

## XP-002211269

AN - 1991-011136 [02]

A - [001] 014 032 04- 062 063 117 124 40& 431 443 446 455 477 50& 532 533 57& 575 595 609 623 627 651 688

- [002] 014 032 034 04- 055 056 117 122 27& 40& 431 443 446 455 477 50& 532 533 57& 575 595 609 623 627 651

- [003] 014 032 034 04- 072 074 076 117 122 27& 40& 431 443 446 455 477 50& 532 533 57& 575 595 609 623 627 651

- [004] 014 032 034 04- 041 046 047 050 27& 40& 431 443 446 455 477 50& 532 533 57& 575 58& 595 609 623 627 651

- [005] 014 032 04- 117 123 40& 431 443 446 455 477 50& 532 533 57& 575 595 609 623 627 651 688

AP - JP19890106807 19890426

CPY - NIMF

DC - A85 L03 P81 P85

FS - CPI;GMPI

IC - G02F1/16 ; G09F9/37

KS - 0009 0209 0231 0241 0250 0306 0376 1095 1100 1107 2419 2437 2457 2488 2569 2653 2682 2718 2726 3151 3153 3159 3170 3258 3278

MC - A12-E11 L03-C03

PA - (NIMF ) NIPPON MEKTRON KK

PN - JP2284126 A 19901121 DW199102 000pp

PR - JP19890106807 19890426

XA - C1991-004923

XIC - G02F-001/16 ; G09F-009/37

XP - N1991-008399

AB - J02284126 A dispersion of electrophoretic particles is sandwiched between a pair of electrode plates both or either being transparent, in partitions of discontinuous phase via porous spacers having swelling property. One electrode plate is flexible to permit close attaching to the swelling porous spacers, while the other made of a transparent, rigid plate. The porous spacers have a portion bonded with an adhesive and a dispersion pool portion surrounding the porous portion.

- The swelling material for the porous spacers is e.g. styrene-butadiene rubber, polyisoprene, acrylonitrile-butadiene rubber, ethylene-propylene copolymer or chloroprene rubber. The pores are punched or bored by laser beam.

- ADVANTAGE - The pores are filled with the dispersion leaving no voids unfilled. (6pp Dwg.No.0/3)

IW - ELECTROPHORESIS DISPLAY DEVICE DISPERSE ELECTROPHORESIS PARTICLE SANDWICH ELECTRODE PLATE ONE FLEXIBLE

IKW - ELECTROPHORESIS DISPLAY DEVICE DISPERSE ELECTROPHORESIS PARTICLE SANDWICH ELECTRODE PLATE ONE FLEXIBLE

NC - 001

OPD - 1989-04-26

ORD - 1990-11-21

PAW - (NIMF ) NIPPON MEKTRON KK

TI - Electrophoretic display device - has dispersion of electrophoretic particles sandwiched between electrode plate one of which is flexible